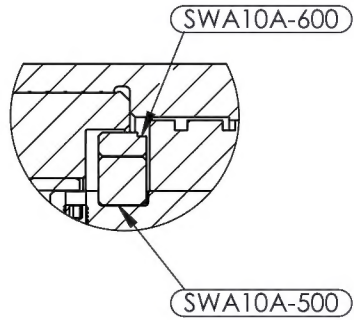
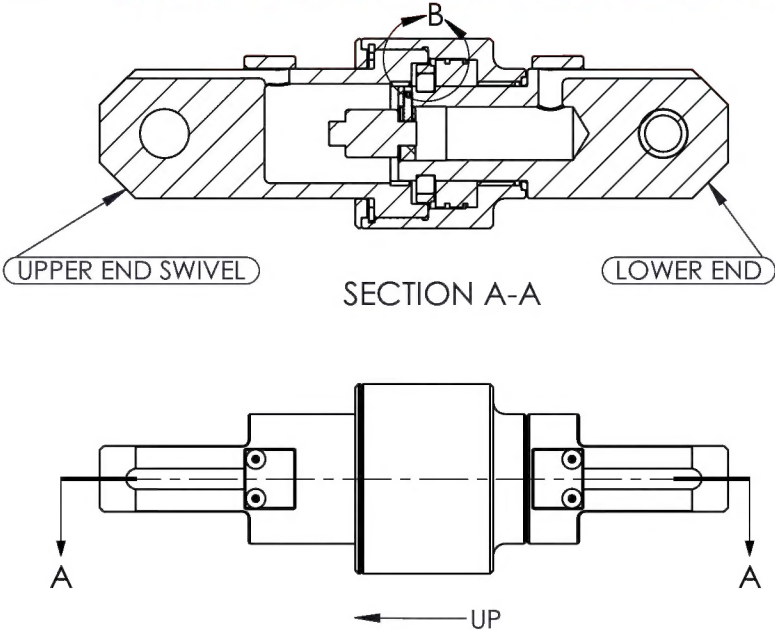


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SEE ATTACHED DEVIATION

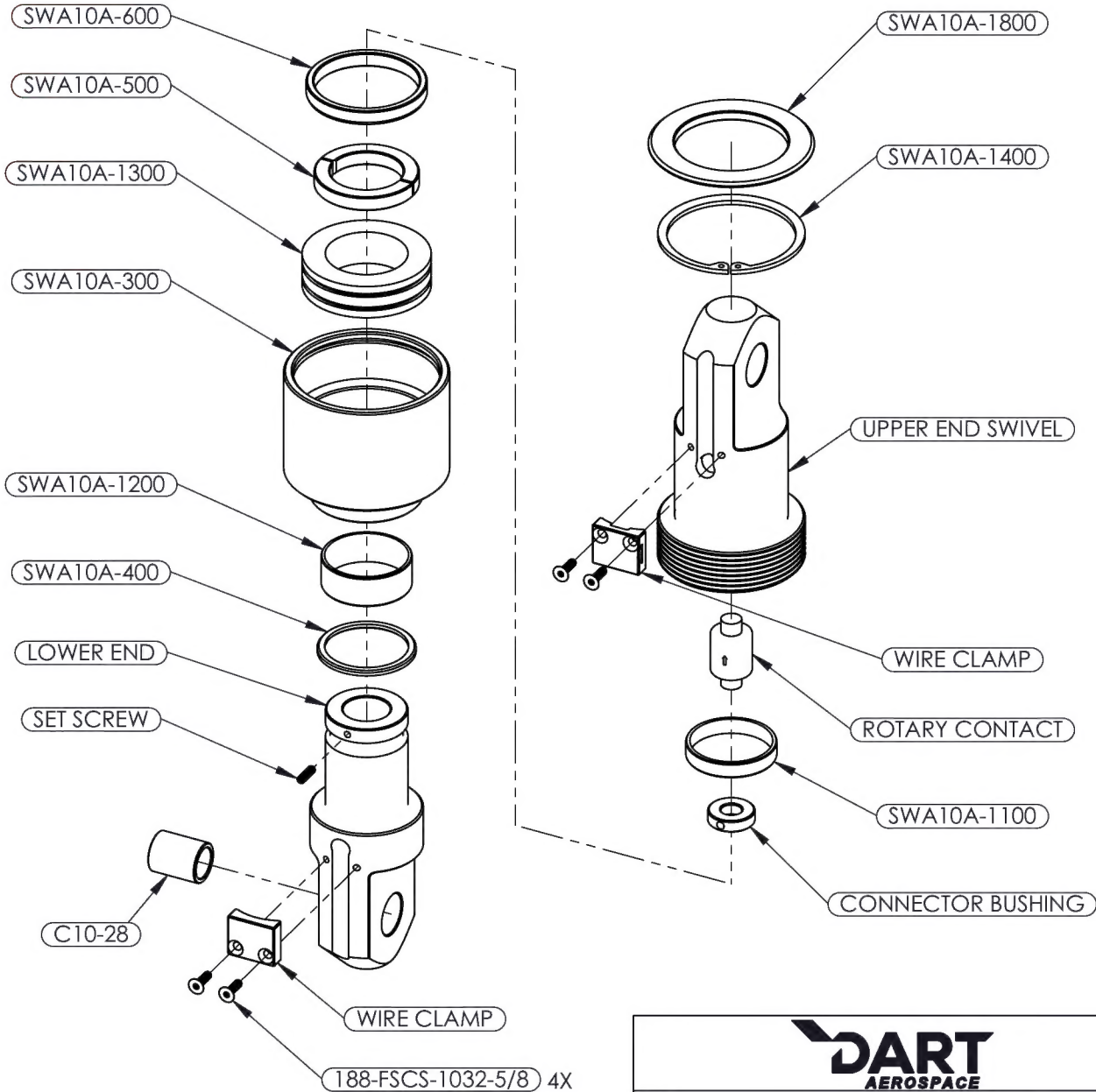


DETAIL B
SCALE 2 : 3



-2/ QTY.	-3/ QTY.	-4/ QTY.	-6/ QTY.	-8/ QTY.	B/O	Part #	Description	Material	B/O INFORMATION OR SPECIFICATIONS
1	1	1	-	-		SWA10A-100	LOWER END	SS 17-4 H1150/H1075	
-	-	-	1	1		SWA10A-110	LOWER END	SS 17-4 H1150/H1075	
1	1	1	-	-		SWA10A-200	UPPER END SWIVEL	SS 17-4 H1150/H1075	
-	-	-	1	1		SWA10A-210	UPPER END SWIVEL	SS 17-4 H1150/H1075	
1	1	1	1	1		SWA10A-300	BEARING HOUSING	SS 17-4 H1150/H1075	
1	1	1	1	1		SWA10A-400	THRUST WASHER	AL-BRONZE 630	
1	1	1	1	1		SWA10A-500	SEMI - RINGS	SS 17-4 H1150/H1075	
1	1	1	1	1		SWA10A-600	COLLAR	SS 17-4 H1150/H1075	
2	2	-	-	-		SWA10A-700	WIRE CLAMP	6061-T6	
-	-	2	2	2		SWA10A-700A	WIRE CLAMP	6061-T6	
1	-	-	-	-		SWA6A-800A	CONNECTOR BUSHING		
-	1	1	-	-		SWA6A-800B	CONNECTOR BUSHING		
-	-	-	1	-		SWA6A-800C	CONNECTOR BUSHING		
1	-	-	-	-	B/O	SWA6A-900A	ROTARY CONTACT		MERCOTAC #230
-	1	-	-	-	B/O	SWA6A-900B	ROTARY CONTACT		MERCOTAC #330
-	-	1	-	-	B/O	SWA6A-900C	ROTARY CONTACT		MERCOTAC #430
-	-	-	1	-	B/O	SWA6A-900D	ROTARY CONTACT		MERCOTAC #630
-	-	-	-	1	B/O	SWA6A-900E	ROTARY CONTACT		MERCOTAC #830
1	1	1	1	1		SWA10A-1100	UPPER DU BEARING	BRONZE/OILITE TUBING	
1	1	1	1	1	B/O	SWA10A-1200	LOWER DU BEARING		(KAMAN MB5020DU)
1	1	1	1	1	B/O	SWA10A-1300	ROLLER THRUST BEARING		(KAMAN 81210TN)
1	1	1	1	1	B/O	SWA10A-1400	CIRCLIP		(KAMAN N5000 350 SPP)
1	1	1	1	1		SWA10A-1800	COVER	SS 17-4 H1150/H1075	
4	6	4	8	12	B/O	SWA6A-1900	1/4" FEMALE SPADE CONNECTOR		(MCMMASTER-CARR #69525K16)
-	-	4	4	4	B/O	SWA6A-2000	1/8" FEMALE SPADE CONNECTOR		(MCMMASTER-CARR #69525K14)
4	4	4	4	4	B/O	188-FSCS-1032-5/8	FLAT SOCKET CAP SCREW	S.S.	10-32 x 5/8 (MCMMASTER-CARR #92210A303)
-	-	-	-	1	B/O	188-FPSS-1032-3/8	SET SCREW	S.S.	10-32 X 3/8 (MCMMASTER-CARR #94355A335)
-	-	-	1	-	B/O	188-FPSS-1032-1/2	SET SCREW	S.S.	10-32 X 1/2 (MCMMASTER-CARR #94355A337)
1	1	1	-	-	B/O	188-FPSS-1032-5/8	SET SCREW	S.S.	10-32 x 5/8 (MCMMASTER-CARR #92311A430)
1	1	1	1	1	B/O	EL-PLUG-F	FEMALE PLUG	PE High Density	(MCMMASTER-CARR #7216K6)
1	1	1	1	1	B/O	EL-PLUG-M	MALE PLUG	PE High Density	(MCMMASTER-CARR #7216K5)
1	1	-	-	-	B/O	EL314-SJTOW	3 WIRE		6 FT. (TEXCAN #EL 314-SJ TOW 3/14)
-	-	1	-	-	B/O	EL414-ARTIC	4 WIRE		6 FT. (TRUCK & AUTO SUPPLY #EL 414-ARTIC 4/14)
-	-	-	1	-	B/O	EL616-ARTIC	6 WIRE		6FT. (TRUCK & AUTO SUPPLY #EL 616-ARTIC)
-	-	-	-	1	B/O	30806	8 WIRE		6FT. (POLAR WIRE #30806)
1	1	1	1	1	B/O	600.1319	UP DECAL		
1	1	1	1	1		C10-28	BUSHING	SAE 660 BRONZE	3/4 Ø SHAFT X 1 O.D. X 1-1/4 (MCMMASTER-CARR #6381K193) MOD.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
A		REPLACED ID DECAL 600.1318 WITH LASER ETCH	11/16/2012	JAG	
2	15-0146	UPDATED TO NEW DRAFTING STANDARDS. ADDED ENGRAVE NOTES AND DETAILS. SWA6A-1900 CH'D QTY'S: ASSY -4 WAS 8 IS 4, ASSY -6 WAS 12 IS 8, ASSY -8 WAS 16 IS 12. SWA6A-2000 ADDED P/N: ASSY -4 QTY 4, ASSY -6 QTY 4, ASSY -8 QTY 4. 188-FPSS-1032-3/8 ADDED P/N: ASSY -8 QTY 1. 188-FPSS-1032-1/2 ADDED P/N: ASSY -6 QTY 1. 188-FPSS-1032-5/8 CH'D QTY'S: ASSY -6 WAS 1 IS 0, ASSY -8 WAS 1 IS 0. EL314-SJTOW, EL414-ARTIC, EL616-ARTIC, EL816-ARTIC CH'D QTY'S WAS 6 IS 1, ADDED 6FT TO B/O INFO. ADDED REBUILD ONLY NOTE	6/16/2015	DPD	JAG
3	17-0090	ADDED NOTE 3, SHEET 1. CH'D P/N WAS EL816-ARTIC (TRUCK & AUTO SUPPLY) IS #30806 (POLAR WIRE). ADDED P/N C10-28.	5/31/2017	RJC	JAG



UNDER REVIEW
URF19-830

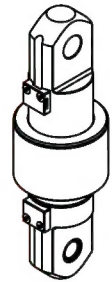
- NOTES:
- FOR REBUILD ONLY.
 - ALL ASSEMBLY TO BE DONE IN ACCORDANCE WITH SWA SWIVEL MANUAL.
 - 8 WIRE STRIP OUTER JACKET & DOUBLE LAYER HEAT SHRINK.

DART AEROSPACE	
TITLE SWA10A SWIVEL	
DWG NO. SWA10A	REV 3
MAT'L HEAT TREAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125✓
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DD 04/18/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/05/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/10/2017	USED ON MODEL
APPROVED: JAG 06/02/2017	
SCALE 1:4	DATE 11/14/2012 SHEET 1 OF 2

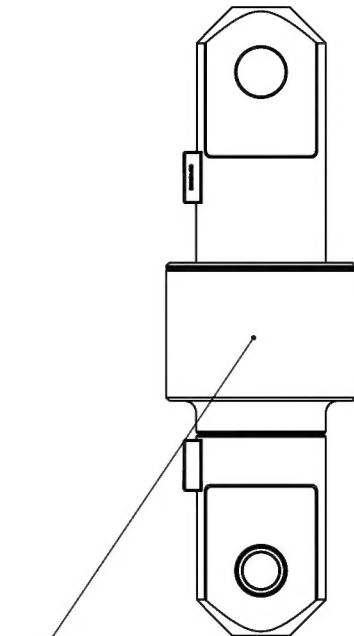
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REVISIONS							
REV	ECR	DESCRIPTION			DATE	INITIAL	APPROVED

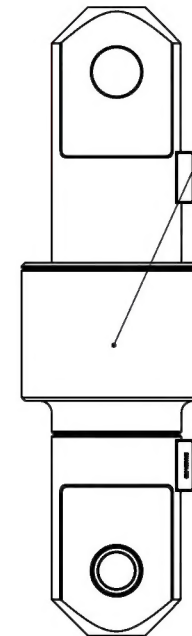
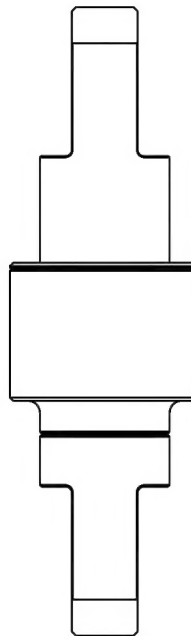
SEE ATTACHED DEVIATION



ENGRAVE P/N, S/N, SWL



LASER ENGRAVE DART LOGO



DART AEROSPACE	
TITLE SWA10A SWIVEL	
DWG NO. SWA10A	REV 3
MAT'L _____ HEAT _____ TREAT _____ FINISH _____ SPEC _____	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125° 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DRAWN BY: GILBERT	USED ON MODEL
CHECKED: DD 04/18/2017	
OPPS APPR: AA 05/05/2017	
QA APPR: JL 05/10/2017	
APPROVED: JAG 06/02/2017	
SCALE 1:4	DATE 11/14/2012 SHEET 2 OF 2

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. <u>C series hooks and SWA Swivels</u>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> </div> <div> Eng. (Non-AW) <input checked="" type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/> </div> </div>			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QS1042) May, 9 2019 <i>M. Lee</i>	
Description Work Order Deviation		Disposition		Completed By	
The electrical wires listed under "Acceptable Alternate Wire" on the attached sheet are acceptable to use in place of the "Drawing Specified Wire"		This deviation is acceptable. No change to fit form or function. The job route must specify the wire that is called out on the drawing The inventory P/N must reflect the same P/N that was received from a vendor		Lead hand / Supervisor 	
				QC / QA Coordinator 	
Root Cause		FAULT CATEGORY			
<div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input checked="" type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Bending <input type="checkbox"/> Crushing <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Mislabeled </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Incomplete/Unclear Instructions <input type="checkbox"/> Drill Holes <input type="checkbox"/> Fit/Function </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain Direction <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Off-set/Set-up </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Outside Tolerance <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Misread </div> </div>			

P/N	Revision	Drawing Specified Wire	Acceptable Alternate Wire
C2	2	MIL-C-27500 11-14416	N/A
C3	2	MIL-C-27500 11-14417	N/A
C10	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C15	2	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C20	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C45	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C60	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C250	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-4	3	EL 414-ARTIC 4/14	Texcan 01121-744A5
SWA6A-2	E	Texcan 01121-724AM	N/A
SWA6A-3	E	Texcan 01121-734A5 or 01004-08-047	N/A
SWA6A-4	E	Texcan 01121-744A5	N/A
SWA6A-6	E	Texcan 04121-764A5	N/A
SWA6A-8	E	Texcan 12701-08-014 or McMaster 7081K38	N/A
SWA10A-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-4	3	EL 414 ARTIC 4/14	Texcan 01121-744A5
SWA10A-6	3	EL 616 ARTIC	Texcan 04121-764A5
SWA10A-8	3	Polar Wire 30806	Texcan 12701-08-014 or McMaster 7081K38
SWA15A-2	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-4	1	EL 414 ARTIC 4/14	Texcan 01121-744A5
SWA15A-6	1	EL 616 ARTIC	Texcan 04121-764A5
SWA15A-8	1	EL 816 ARTIC	Texcan 12701-08-014 or McMaster 7081K38
SAW25A-2	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SAW25A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SAW25A-4	1	EL 414 ARTIC 4/14	Texcan 01121-744A5
SAW25A-6	1	EL 616 ARTIC	Texcan 04121-764A5
SAW25A-8	1	EL 816 ARTIC	Texcan 12701-08-014 or McMaster 7081K38

Under Review Notification

Raised By: MYCHEL BEAUREGARD

Product #: SWA6A, SWA10A, SWA15A, SWA25A, PWSA25A

Date: 19.07.29

Product Name: Swivel Hooks

Part Number (D-Part and 9-Digit) (eg. D3535-11) (eg. D3535-25) (eg. D206-642-143) (eg. RBEM324U3010101-1)	Drawing or Document & <u>Current</u> Affected Revision for each part listed	"Y" or "N" Required for Each Part Do not leave blank							Reserved ECN / URF Log Number	Instructions Relevant to Each Part (including whether CHG #'s will be affected)
		DO NOT SHIP	Red Tag/Quarantine Stock	Advise Customers	Hold all Production	Re-Work Stock	IPP Under Review (Engineer Signoff Required.)	Put Product Specifications Under Review ("Bluefiles")		
SWA6A-8	SWA6A REV. E	Y	Y	N	Y	Y	Y	Y	19-830	See below
SWA10A-8	SWA10A REV. 3	Y	Y	N	Y	Y	Y	Y	19-830	See below
SWA15A-8	SWA15A REV. 1	Y	Y	N	Y	Y	Y	Y	19-830	See below
SWA25A-8	SWA25A REV. 1	Y	Y	N	Y	Y	Y	Y	19-830	See below
PWSA25A-8	PWSA25A REV. A	Y	Y	N	Y	Y	Y	Y	19-830	See below

Description of Issue:

Electrical wire does not fit in hole and slot
 No heat shrink call on the drawing
 Electrical plugs are called in the BOM but are not required
 Electrical wire need to be updated to have flexible wire type

Distribution:

VP Operations

Director of Operations

Director Quality Assurance

QC Coordinator

Director of Engineering

Chief Engineer

Engineering Project Managers

Engineering Clerk

Customer Support Manager

Production Engineers

Production Planners

Purchasing Manager

Technical Support

Product Manager - Solutions Provider

Supply Chain Director / Senior Buyer

Marketing Eugene